Section 5

Engineering Report

Engineer Certification

This Report has been prepared in accordance with the requirements specified in Section 4.4.1.4 and 9.3 of the Regulations Delaware Governing Solid ("DRGSW") to address the proposed Resource Recovery Facility for recyclable waste materials that will be operated by Gold Medal Environmental of DE, LLC.

Brasily J. Cunners GHAm Print Name

Signature

Seal:

Engineering Report

Gold Medal Environmental of DE, LLC

Resource Recovery Facility

Management of Recyclable Waste Materials

Gold Medal Environmental of DE, LLC 1000 S. Heald Street, Wilmington, Delaware 19801

December 2016

Prepared by: Compliance Plus Services, Inc. 455 Business Center Drive, Suite 250, Horsham, PA 19044 (215) 734-1414 or 1-866-976-PLUS

Project Number: 0338.1015.02

Engineering Report

Gold Medal Environmental of DE, LLC

Resource Recovery Facility

Section 4.4.1.4 An engineering report

This report and has been prepared and signed by a Professional Engineer registered in the State of Delaware. This report includes the following;

4.4.1.4.1 A drawing or drawings showing the complete layout of the facility.

A drawing showing the complete layout of the facility is included in Attachment I of this report (see Drawing No. SP-1, Facility Site Plan, prepared by Compliance Plus Services, Inc. ("CPS"), dated September 28, 2016). In addition, a layout of the facility's processing buildings and outdoor storage areas is provided in CPS Drawing No. SP-2 dated September 28, 2016 and is also included in Attachment I.

4.4.1.4.2 Mass and energy balances, including calculations and pertinent facts relating to the development of these balances.

The facility currently operates as a Resource Recovery Facility (under Permit No. SW-03C17) to provide material separation and recovery services for commingled single stream commercial/industrial generators of recyclable materials. The facility also accepts other recyclable waste materials including aggregates (e.g., brick, block, stone, concrete, etc.), wood/lumber waste and drywall. The commingled recyclable waste materials are received by truck into the facility's process buildings where the materials are separated, or sized and packaged into shippable units by a baler or segregated and stockpiled in bulk, such as for aggregates and wood. These recycled products or commodities that are produced are staged in inventory and eventually shipped offsite by truck to a reclaimer/processor for reuse. All incoming and outgoing truck loads are weighed on a certified scale at the site. The mass balance of the facility can be performed by showing the in-process and processed inventory equal to the inbound tonnage received minus the outbound tonnage shipped. There are no pertinent calculations pertaining to energy balances that are relevant to this proposed facility.

4.4.1.4.3 Descriptions and specifications of all proposed design features that the engineer has provided to the owner of the facility.

The Gold Medal Environmental of DE, LLC ("Gold Medal") facility has been engineered to support recycling/recovery operations for recyclable waste materials so these materials can be beneficially reused and returned to the marketplace. The beneficial reuse allows Gold Medal to reduce the amount of solid waste requiring disposal at Delaware landfills. It also provides a cost effective alternative materials to manufacturing and construction industries, thereby both reducing the need to use virgin materials and avoiding depletion of natural resources.

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Gold Medal's facility conducts the following operations at this site location:

- Measurement of incoming truck load of recyclable waste materials to be recycled utilizing a certified truck scale;
- Receiving of recyclable materials including and separation waste paper/cardboard, plastics, aluminum/bale-able metals, and loose metal;
- Receiving, separation, and sizing of C&D recyclable materials including drywall, wood waste, and aggregates.
- Baling of paper/cardboard, plastics, and aluminum/bale-able metals;
- Shipment offsite of separated materials over a certified scale for sale.

The following information describes information for each of these operations:

Measurement of Incoming Recyclable Materials

Materials will be delivered to the site in various types of trucks. Each truck will have varying capacities, however, the typical single stream recyclable vehicle is projected to weigh approximately 8 - 10 net tons. Each truck will be weighed into the facility and the certified scale system will provide recordkeeping information and documentation for each load that arrives at the facility, including source/customer information, tonnage and type of materials or commodities received.

Receiving, Separation, and Sizing of Incoming Materials

All vehicles unload in a designated receiving area at the facility. These receiving areas are located inside the processing buildings as shown in Drawing No. SP-2. Accordingly, all materials delivered to the site will be unloaded indoors.

The incoming materials are visually inspected for unacceptable materials indoors when the contents of the vehicle are unloaded onto the receiving area floor. Unacceptable materials include liquid waste, medical waste and/or hazardous waste. If the operator discovers unacceptable materials in the incoming shipment, the operator notifies the Operations Manager, or his designate, to initiate the appropriate procedure to reject the materials in accordance with the facility's Operation Plan.

The facility utilizes state-of-the art equipment, with demonstrated separation, screening, sizing and sorting capabilities, to process incoming materials. In conjunction with mechanical sorting equipment, the processing also includes hand sorting stations. This enhances the flexibility of the processing system allowing separation and sorting to be modified to meet the demands of a dynamic reuse and recyclable commodities market.

The facility will utilize multiple pieces of operating equipment as required to meet the demands of the individual end markets and to produce consumable commodities it

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generates from the materials received. The types of equipment previously installed include:

- Magnets Utilized for the removal of and sorting of steel, bimetallic cans and other ferrous metal materials.
- Screens Utilized to sort and size materials and remove out-throws from the recoverable material.
- Air classifiers Can be used to separate materials based on density, including plastics and aluminum
- Eddy Current Utilize electrical current to sort aluminum cans
- Optical Sorts Use variety of light sources to detect and separate certain pre-programmed materials which can greatly improve the quality of the salable commodity

In addition to fixed equipment, mobile equipment, consisting of, but not necessarily limited to, a High reach, forklifts, Front End Loaders and Tracked Excavators, will be used to move in-process and processed material from area to area in the building and into the storage areas. This mobile equipment will also be used to load outbound trucks with processed recyclables. Additionally, portable grinders may be utilized to resize aggregates, wood, etc. to meet market end use demands.

A list of the equipment that will be used at the site is included in Attachment II of this report. In addition, Attachment III of this report includes manufacturer's specifications and detailed processing capabilities for the fixed processing equipment identified above. Both the mobile and fixed equipment identified in this report may be substituted as necessary with similar units that provide equivalent processing capabilities and functionality.

Baling of Separated Recyclable Materials and Out-Throws

Baling of commodities prior to storage and shipment to their end use or market reduces required storage capacity and aids with loading and shipment.

Any material that can effectively be densified by baling will be baled prior to storage and shipment offsite. This includes, but is not limited to, paper, aluminum cans, steel or bimetal cans and plastics. The Gold Medal facility may also bale process out-throws (material not destined for recycling or reuse) prior to shipment offsite for disposal whenever possible.

The manufacturer specifications and design capacity information for the Bollegraaf extrusion baler are included in Attachment III of this report.

Shipment offsite of Separated Recyclable Materials for Sale

The facility intends to ship commodities offsite in the most efficient and effective manner available. This will include the use of enclosed trailers, box vans or flatbed trailers for baled materials. Bulk loose materials such as metal and wood that will not be baled, will

be shipped by tri-axle dump trucks, trailers, or roll-offs. Each outbound load will be weighed on the certified scale and the weight will be documented for tracking and business requirements.

4.4.1.4.4 A description of the proposed installation methods and procedures.

Process Building No. 1, including the walls and the roof, meet the local building code requirements. The facility's exterior traffic areas and vehicle staging areas include up to 18 inches of crushed stone and/or asphalt paving as shown on CPS Drawing No. SP-1.

The concrete floor of Process Building No. 1 was used to secure the mounts for all of the fixed equipment used to separate/sort recyclable materials. The minimum thickness of the concrete floor is 6 inches. The manufacturer's installation instructions have been followed to secure the baler, sorting conveyors, magnets, screens, air classifiers, and any additional sorting equipment that is or will be floor mounted. As needed, footers may be cut into the floor to provide any required anchoring in accordance with the manufacturer's guidelines and recommendations. Any additional fixed equipment installed to facilitate the processing and segregation of recyclable waste materials will adhere to these same guidelines.

4.4.1.4.5 A plan for third-party quality assurance for the construction and installation of components of the facility that will be used in the processing, handling, and/or monitoring of solid waste.

The proposed construction installation for the recyclable waste materials processing areas will be overseen by a qualified professional engineer to provide a final independent professional engineering certification to document that the construction was completed in accordance with the design requirements. As part of this certification, the PE will conduct onsite inspections and evaluations, as he determines are necessary, to ensure that the quality of construction meets the standards specified by the manufacturer and design engineer. A final certification letter will be submitted to Gold Medal and to the Department prior to commencement of operations within any of the management units for the processing areas for recyclable waste materials not currently in place.

4.4.1.4.6 A schedule of events for construction of the facility.

The Gold Medal facility was previously constructed in early 2012. The proposed modification to add a covered pad to receive C&D materials will result in an additional structure being built. The new C&D storage area will be delineated and signage will be placed in proximity of the area to identify them prior to use. Any new portable equipment will be used for recyclable waste materials processing once required operating permits, if any, have been obtained.

4.4.1.4.7 Proposed design capacity per day, and life expectancy of the facility.

The Gold Medal facility has the following design capacities:

Maximum Daily Volume: 750 tons/day

(Processing operations are permitted 24 hours/day, 7 days/week)

Average Daily Volume: 500 tons/day

Product Storage: 5000 tons

Receiving Hours: 24 hours/day, 7 days/week

Life expectancy of the facilities at Gold Medal is at least twenty years under normal process wear.

4.4.1.4.8 A description of potential safety hazards and methods of control.

All processing systems will be operated in accordance with the facility's health and safety policies and procedures as outlined in Section 6.0 of the Operations Plan (Section 4 of this application). These procedures cover a myriad of OSHA-required training and safety programs (e.g., lockout/tagout, fall protection, confined space, proper use of personal protective equipment, etc.) to ensure that all operations conducted at Gold Medal meet both federal and state specific-guidelines and standards for industry safety. Routine safety walk-throughs are conducted by facility personnel to ensure company safety policies and procedures are adhered to.

In addition, the manufacturer operating safety manuals for the baler and the material moving equipment will be incorporated into the facility health and safety policies and procedures.

Vehicle traffic patterns and truck management procedures have been established at the site for internal roadways and loading/unloading areas. These established traffic handling practices will allow the facility to establish pedestrian areas away from heavy equipment areas and roadways to avoid potential injuries or accidents. Additional site signage will be placed at the site to guide inbound and outbound trucks to the appropriate staging areas and entrance/exits locations as well as to set onsite speed limits.

The types of materials that will be managed in the separation operations generally do not present an increase in the safety or health exposure concerns at this facility. The main safety concerns in operation of the facility is protection from physical hazards such as sharp and jagged edges of the materials being handled and staying clear of equipment operating areas and truck ingress and egress areas. Gold Medal's employee health and safety training and procedures program is expected to minimize the reuse from the proposed operations.

4.4.1.4.9 An analysis of the concept of the facility's expansion at a later date, if and when deemed necessary by the Department.

No further expansion of the facility is proposed at this time other than the specific operations addressed in this submission.

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4.4.1.4.10 An identification of possible ground water and surface water discharges.

The operations involving the processing of recyclable waste materials are not expected to result in any discharges to groundwater or surface water at this facility. All processing at the site will be conducted in an existing building that is fully enclosed. The building floor is comprised of a six (6) inch concrete slab. There are no floor drains or water discharge points within the building. In addition, the facility will only be used to manage drywall, wood waste, paper, cardboard, plastic, metal, and aggregates. No liquid waste will be accepted at the site and no process wastewaters are expected to be generated from the proposed operation.

After processing, Gold Medal may store the processed recycled products or commodities produced at the facility outside in areas designated for storage only (see CPS Drawing SP-2 dated 09/28/16 in Attachment I). Commodities stored outside are limited to containerized materials which minimizes potential discharges. All recycled materials will only be received and processed inside the processing buildings. Storage of recyclable waste materials, residual out-throws and recycled products/commodities are also primarily limited to inside the Process Building No. 1.

9.3.4 Minimum design requirements

The minimum design criteria specified herein has been developed to ensure that the proposed Gold Medal facility will comply with the standards specified in Section 9.3.4 of the Delaware Regulations Governing Solid Waste (DRGSW).

The Gold Medal facility is located at a former tire recycling facility located in a heavily industrial area. All processing operations are inside the main processing building which was previously used for tire recycling. The building provides screening and is setback from entrance to the property.

The entire processing operation will be conducted inside the processing buildings. The building roof drainage system conveys rainwater away from the building which is surrounded by asphalt so no erosion controls are required.

An auxiliary power system is not present at the facility. In the event of a power failure, the processing equipment would stop operating with no additional risk of damage occurring. The overhead doors can be closed manually to secure the facility.

Control mechanisms to minimize and contain accidental spills of lubricants and hydraulic oils can be found in the facility's Contingency Plan, included as Attachment IV of the Operations Plan. The majority of the facility is covered by impervious surfaces. Consequently, the majority of spills could be cleaned up with oil dry, booms, and other absorbent materials.

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The facility's Contingency Plan also addresses fire detection and protection. Included in the Contingency Plan is a drawing of fire extinguisher locations throughout the facility and information on how to contact the local fire department, if needed.

A 6' high chain link fence is located at the perimeter of the facility and the entrances to the facility include gates which can be secured when the facility is not in operation. The fence will prevent access from unauthorized persons into the facility.

The facility has two certified truck scale to weigh all incoming and outgoing vehicles. Types of materials and weights for each load are recorded and electronic records maintained by the facility.

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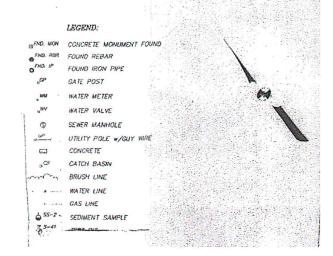
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Attachment I

Maps and Drawings

CPS Drawing No. SP-1 Site Plan



2. TAX PARCEL No's.: 10-001.00-047 & 10-001.00 0%

J. SOURCE OF TITLE: DR. 365-277, DR. R-68-347 & DR. K-76-250

4. AREA = 12.046 ± ACRES

6, DATE OF FIELD SURVEY: APRIL 18, 1995

7. AS SCALED FROM THE MATIONAL FLOOD INSURANCE PROGRAM RATE MAP COMMUNITY PANEL NUMBER 105005 00350, REVISED SEPTEMBER 4, 1986, THIS PROPERTY LIES WITHIN ZONES 'A-5' & 'B'.

8 HORIZONTAL DATUM: NORTH AMERICAN DATUM, 1927.

9. VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM, 1929.

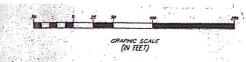
10. RENCHMARIC "MILLSIDE" — IN TRIANGULAR ISLAND AT INTERSECTION OF U.S. ROUTE 13, U.S. ROUTE 13—A AND ROGERS ROAD, ELEY = 24.957 (NOVD 1929)

11. SHE BENCHMARK: FOUND MONUMENT AT PROPERTY CORNER ON SOUTHERLY SIDE OF SHIPPING & HANDLING BUILDING, ELEV = 6.40 (NG/O 1929)

ORIGINAL DRAWING: "PROPERTY & TOPOGRAPHIC PLAN" BY G&F, PROVIDED BY BLUE RIVER RESOURCES of NEW CASTLE, DELAWARE.

2. FLOOD ELEVATIONS ON THE FEMA FLOOD INSURANCE RATE MAP
ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM
OF 1988. THESE FLOOD ELEVATIONS MUST BE COMPARED TO
STRUCTURE AND GROUND ELEVATIONS REFERENCED TO THE SAME
VERTICAL DATUM. THE NATIONAL GEODETIC VERTICAL DATUM OF 1929
MUST BE CONVERTED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988.

OWNER OF RECORD: HEALD STREET, LLC 4048 NEW CASTLE AVENUE NEW CASTLE, DE 19720



Resource Recovery Facility - Site Plan Gold Medal Environmental of DE, LLC 1000 S. Heald Street

SERVICES, INC. (186 A 19040 FAX (215) 734-1424

COMPLIANCE PLUS 5 P.O. BOX 1 HATBORO, PA HONE (215) 734-1414 * F.

CPS Drawing No. SP-2 Process and Storage Area Location

Attachment II

List of Processing Equipment

Gold Medal Environmental of DE, LLC Equipment List

Major Equipment List

- 100 HP Ballegraaf single ram baler with feed conveyor
- 100 HP International with infeed conveyor
- 100 HP American Baler with infeed conveyor
- 100 HP Vecoplan shredder with infeed conveyor
- 15 person sort line with Bollegraaf OCC screen and BHS fiber screen complete with various off conveyor and bunkers
- Container sort line with eddy current, magnet and bunkers
- C&D Sortline with cross belt magnet and bunkers

Mobile Equipment List

- Articulated wheel loaders
- Skid steer
- Forklifts
- Case Excavator Cx235
- Cat 928f articulated wheel loader
- Trailers and trailers
- Box truck

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Attachment III

Equipment Specifications

Bollegraaf



HBC 100 Baler

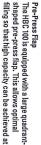


Bollegraaf. Big in making recyclables small.

igh-Tech Engineering Gives Optimal Pressing Force

is being marketed very successfully all over the world. The baler has materials into homogeneous bales. This powerful Bollegraaf machine forces at a relatively low motor power requirement. been further improved by application of high-tech hydraulic engineering The HBC 100 baler can process large volumes of waste paper or waste The HBC 100 therefore combines a high capacity with high pressing







filling so that high capacity can be achieved at

The HBC 100 is equipped with patented RotoClean needle heads which have a Patented Needle Heads

Hydraulic Cylinder

maintenance-friendly. self-cleaning design and are therefore

service life. the cylinders to move both vertically and and guides and contributes greatly to a long horizontally. This prevents wear on the seals The universal joint suspension enables

Maximum Speed at Low Motor Power

ram cylinder has a differential travel when the compression force is not required. The oil are monitored electronically. The level and temperature of the hydraulic for the ram cylinder at low motor power. that maximum travel speed is guaranteed piston rod has a larger diameter than that of The hydraulic unit is highly efficient and the standard cylinder. These features ensure

Flexible Pre-Press Flap

for intervention. to open the flap, thereby eliminating the need jam. Sufficient compression force is available tension so that the pre-press flap can never consumption. The cylinders are suspended in ensures maximum baler speed at low power pre-press flap opens simultaneously. This too During the return travel of the ram cylinder the

Low-Noise Pump

The internal ring gear pump is Swiss made and is part of the lowest noise pumps in the world.

Wear-Resistant Ram

bearings, thus ensuring minimal wear on the guides. This contributes to the HBC 100's long service life and low maintenance costs. The wheels of the ram are supported in

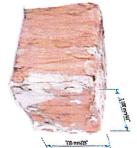


of compacted, homogeneous bales. The pre-

press flap eliminates the need to shear the material, so the question of replacing

expensive shear blades never arises.

are controlled by the PLC. This ensures a trouble-free course of the production process. process. So a fault can easily be located. which indicates any faults in the production The HBC 100 is equipped with a control panel PLC
The electrical functions of the HBC 100



The high-quality machines are designed by our specialists using an extensive network of CAD stations. The steel plate parts are flame cut by a CNC-controlled flame cutting machine. The Tailor-made work of a high standard.



Five Options for Specific Requirements

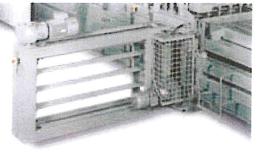


TurboPress (Patented)

The capacity of the HBC 100 can be greatly increased by the TurboPress. This results in faster and more economical operations. The TurboPress compacts the material in the feed hopper. The feed hopper volume is therefore used to its maximum. This increases the capacity by no less than 300%. The TurboPress is particularly indispensable when processing low bulk materials such as shop cartons, pre-shredded or destructed materials. Motor power: 2.2 kW (3 HP).

Ruffler

The 'Ruffler' ensures uniformly composed bales during the supply of high bulk density material into the feed hopper. As soon as materials such as magazines, newspapers, computer paper, etc. are discharged into the feed hopper a rotating impeller uniformly distributes these materials in the feed hopper. In that way the ruffler ensures rectangular, evenly composed and homogeneous bales. Motor power: 11 kW (15 HP).

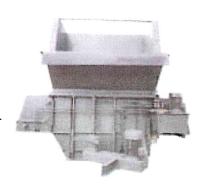


Cross Wires: Even more Compacted Bales

The HBC 100 can be fitted with cross wires so that materials such as coated and laminated paper and plastics which are difficult to compact can also be shaped into perfect bales. Apart from the standard five vertical wires, the bales are then also tied by three horizontal wires. This ensures that only a minimum amount of material is lost from the bales during handling. Knotter motor: 2.2 kW (3 HP).

W'hopper

For processing larger waste items (TV boxes, for example) the HBC 100 can be fitted with a wider feed opening, the W'hopper. This allows even extremely bulky materials to be compacted without pre-processing in a shredder. The W'hopper for the HBC 100 has a width of 2,000 mm (6'7"). Motor power: 4 kW (5.5 HP).



B.I.O.S. & Display

The HBC 100 baler can be equipped with the Bollegraaf Information & Operating System (B.I.O.S.). This allows specific preferred settings to be programmed. Moreover, the B.I.O.S. control display provides relevant information about the production process, such as power consumption, wire consumption, compaction force, compaction time and actual capacity per type of material. This data is recorded, as is the data relating to maintenance and failures.



1510 mm/371.1. 1510 mm/16.9. 15116 mm/16.9.

Technical Specifications

Hopper size Feeding conveyor width Pre-press flap pressure Hydraulic motor Pressure force Capacity/cycle Cycle time with material **Knotter motor Baler** weight Bale dim. WxH Bale length Bale weight Capacity at a S.G. (specific gravity) of 20 kg/m² (1.24 lbs/ft²) 50 kg/m³ (3.1 lbs/ft²) 100 kg/m3 (6.2 lbs/ft3) Capacity when ruffler is used

HBC 100
1,600x1,100 mm (63"x43")
max. 1,600 mm (53"/67")
50 Mp/tonf (55 tonf)
1x75 kW (100 HP)
100 Mp/tonf (100 tonf)
3.15 m² (111 f²)
19 sec.
2.2 kW (3 HP)
30 tons (33 tons)
1,100x720 mm (44"x29")
adjustable
550-800 kg (1212,75-1764 lbs)

12.5 tons/hr.(14 tons/hr.) 25 tons/hr. (28 tons/hr.) 50 tons/hr. (55 tons/hr.)

31 tons/hr. (24 tons/hr.)

*Subject to modifications

This brochure is offered to you by:



Attachment IV

Construction Schedule for Facility Improvements

Gold Medal Environmental of DE, LLC Construction Schedule for Facility Improvements

Item	Description	Proposed Completion Date
I.	Issuance of Resourse Recovery Permit Renewal by the Department	Day 0
II.	Apply for Land Use and SIRS approvals and for building permits for the Proposed Covered Pad for C&D material as required	Day 30
III.	Begin construction of Covered Pad for C&D material	Day 90
IV.	Complete construction of Covered Pad for C&D material	Day 120
V.	Submit Engineer Certification of construction of the Covered Pad for C&D material to the Department	Day 150

Notes:

- 1. Proposed completion dates subject to change based on issuance of local permits and state approvals.
- 2. The Covered Shipping Area for Commodities and Products was constructed by the previous owner.